

Physics 334, Winter Quarter 2012

Electric Circuits Laboratory I

Course Information (ver 2: snow days info)

courses.washington.edu/phys334

Instructor: Prof. Leslie J Rosenberg

ljrosenberg@phys.washington.edu, office phone 206 221-5856

Office: Physics & Astronomy Building (PAB), room C503

Office Hours: Tuesdays 10:30-11:20am at PAB C503

Text books:

P.Horowitz and W.Hill, The Art of Electronics, 2nd edition.

T.Hayes and P.Horowitz, Student Manual for the Art of Electronics

There are copies of the text books for viewing in the lab.

Lab Technical Supervisor: Jason Alferness, B256B, 221-2974

alf@phys.washington.edu

Meeting times and locations:

Lectures: Physics & Astronomy Building (PAA), room A118

Tuesdays and Thursdays 9:30-10:20am

Note: The first lecture is Tuesday January 3

Labs: Physics & Astronomy Building (PAB), room B280

Section AA (TA: C. Zeng): Tuesday 1:30-4:20pm

Section AB (TA: C. Boutan): Wednesday 1:30-4:20pm

Section AC (TA: C. Boutan): Thursday 1:30-4:20pm

Section AD (TA: C. Zeng): Friday 1:30-4:20pm

Note: Labs start the week of January 9

Teaching Assistants contact information:

Christian Boutan, office PAA B155, boutan@uw.edu

Chengeng Zeng, office PAA B231, genguni@uw.edu

Homework: Problems are assigned most weeks and are due at the Tuesday lecture the following week. Not all problems will be graded. Late homework gets zero points.

Exams: There are two 50-minute exams, one on Thursday February 2 and the other Thursday March 8. There's no final exam. There are no make-up exams.

Labs: There are eight labs in the course. The labs are a mix of exercises from the lab-manual textbook and exercises from lab handouts; the lab handouts are on the course web site. Incomplete labs receive partial credit. You can complete labs in another section with approval of both your TA and the other TA. If you complete labs in another section, you are responsible for getting your lab report to your TA; this does not happen automatically. ~~The last class week of is make-up labs; you can make up one and only one lab this last week.~~ *Since three out of four labs were cancelled the week of 16-20 January due to snow & ice, we'll "slide" labs back one week. This means: On January 24, there's no lab (these students had lab #2 the week before); labs on January 25, 26 & 27 are lab #2. All labs the week of Jan 30 to Feb 3 are lab #3, and so on. The last course week March 5-9 is lab #8. The make-up lab day is Monday March 5 from 9am to 5pm; you can make up one and only one lab this day. There are no labs during finals week.*

Lab reports: You will turn in lab reports at the end of each lab. You don't need a lab notebook, but I recommend you use cross-ruled engineering paper so you can make careful graphs and sketches. Begin each report with your name and date of the lab. Subdivide the report into sections corresponding to assigned sections in the lab manual, e.g. 1-1, 1-3. Each circuit must have a neat, readable schematic in your report; see Horowitz and Hill appendix E for information on what constitutes a readable schematic. Record your calculations, make graphs and sketches of oscilloscope traces as needed, and answer questions in the lab handouts and lab manual. Don't make the report unnecessarily long: keep it short, concise but complete. Neatness and clarity certainly counts. You have to turn in

reports and get a passing grade in each for all the labs to pass the course.

Grading:

Note on labs: You'll need to turn in and pass all 8 labs to pass the course. Remember: You can make up only one lab the last week of class. Corollary: If you're missing two labs entering the last week of class, you'll fail the course; see the section above "Labs" for more information.

Exam 1: 15%

Exam 2: 20%

Homework: 15%

Lab practice (assessed by your TA): 20%

Lab reports: 30%

The mean grade in the class has been around 3.1

Web site: The web site courses.washington.edu/phys334 contains more information, including comments on the organization of the lab, tips on using the lab breadboards, sample exams and solutions, and specific handouts for each of the eight labs.

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